AMENDMENTS TO THE CLAIMS

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1. (Currently Amended) A method comprising:

maintaining a state of a cache line having contents indicated by a first node;

in response to a request from a second node to access the contents ~~cache line~~, determining whether the state is an ambiguous state; and

resolving the ambiguous state.

2. (Currently Amended) The method of claim 1 wherein maintaining the state comprises maintaining a presence vector indicating whether the first node has a copy ~~of a contents~~ of the contents ~~corresponding to the cache line~~.

3. (Original) The method of claim 2 wherein the presence vector further indicates whether the state is a Shared state or an Exclusive state.

4. (Original) The method of claim 1 wherein resolving the ambiguous state comprises snooping the first node for a current status of the cache line.

5. (Currently Amended) The method of claim 4 further comprising ~~receiving a modified~~ receiving modified contents of the cache line.

6. (Currently Amended) The method of claim 5 further comprising updating a

memory location designated for ~~storing a contents~~ storing at least one of the contents, and the modified contents ~~of the cache line~~.

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7. (Original) The method of claim 6 wherein the memory location resides on a third node.

8. (Original) The method of claim 1 further comprising completing the request.

9. (Currently Amended) A method comprising:

maintaining a state of a cache line having contents indicated by a first node of a plurality of nodes in a shared memory system having a copy ~~of a contents~~ of the contents stored in a memory location on a second node of the plurality of nodes;

in response to receiving a request from a third node of the plurality of nodes to access the contents ~~cache line~~, determining whether the state is an ambiguous state; and

resolving the ambiguous state.

10. (Currently Amended) The method of claim 9 wherein maintaining the state comprises maintaining a presence vector indicating whether the first node has a copy ~~of a contents~~ of the contents ~~corresponding to the cache line~~.

11. (Original) The method of claim 10 wherein the presence vector further indicates whether the state is a Shared state or an Exclusive state.

12. (Original) The method of claim 9 wherein resolving the ambiguous state comprises snooping the first node for a current status of the cache line.

13. (Currently Amended) The method of claim 12 further comprising ~~receiving a modified~~ receiving modified contents of the cache line.

14. (Original) The method of claim 13 further comprising updating the memory location.

15. (Original) The method of claim 9 further comprising completing the request.

16. (Currently Amended) A shared memory multiprocessor system comprising:

a plurality of node controllers; and

a switch coupled to each of the plurality of node controllers, wherein the ~~plurality of node controllers and the switch are~~ switch is programmed with instructions, the instructions causing the switch to:

maintain a state of a cache line having contents last indicated by a first node controller of the plurality of node controllers; ~~and~~

in response to a request from a second node to access the contents ~~cache line~~, determine whether the state is an

ambiguous state; and

resolve the ambiguous state.

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17. (Currently Amended) The shared memory multiprocessor system of claim 16 wherein the switch further comprises a presence vector, the presence vector maintaining a status ~~of a cache~~ of the cache line for each corresponding participating node controller of the plurality of node controllers.

18. (Original) The shared memory multiprocessor system of claim 17 wherein the presence vector further indicates if the cache line for the corresponding participating node controller contains a copy of a memory.

19. (Currently Amended) A machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause the processor to:

maintain a state of a cache line having contents indicated ~~indicate~~ by a first node;

in response to a request from a second node to access the contents ~~cache line~~, determine whether the state is an ambiguous state; and

resolve the ambiguous state.

20. (Currently Amended) The machine-readable medium of Claim 19 wherein

the instructions to maintain the state further comprises instructions to maintain a presence vector indicating whether the first node has a copy ~~of a contents~~ of the contents ~~corresponding to the cache line~~.

21. (Original) The machine-readable medium of claim 20 wherein the presence vector further indicates whether the state is a Shared state or an Exclusive state.

22. (Original) The machine-readable medium of claim 19 wherein the instructions to resolve the ambiguous state further comprises instructions to snoop the first node for a current status of the cache line.

23. (Currently Amended) The machine-readable medium of claim 22 further comprising instructions to ~~receive a modified~~ receive modified contents of the cache line.

24. (Currently Amended) The machine-readable medium of claim 23 further comprising instructions to update a memory location designated for ~~storing a contents~~ storing at least one of the contents and the modified contents ~~of the cache line~~.

25. (Original) The machine-readable medium of 24 wherein the memory location resides on a third node.

26. (Original) The machine-readable medium of 19 further comprising instructions to complete the request.